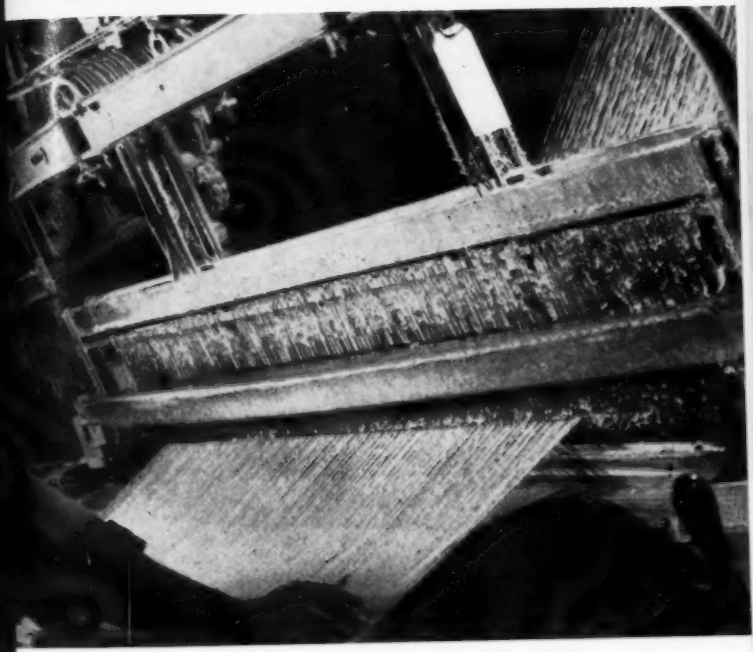
ASBESTOS



JUNE - 1948

"ASBESTOS"

FOUNDED IN JULY 1919 AND PUBLISHED
MONTHLY SINCE THAT DATE
BY SECRETARIAL SERVICE
17th FLOOR INQUIRER BUILDING
PHILADELPHIA, 30, PENNSYLVANIA

Estate of C. J. STOVER, *Proprietor*
A. S. ROSSITER, *Editor*
E. E. COX, *Circulation Manager*

Entered As Second Class Matter November 23, 1923, at the Post Office at Philadelphia, Pennsylvania, Under Act of March 3, 1879

Volume 29 JUNE 1948 Number 12

CONTENTS

SUBSCRIPTION PRICE

UNITED STATES	$2.00	PER YEAR
CANADA	3.00	" "
FOREIGN COUNTRIES	3.00	" "
SINGLE COPIES (Current)	.25	EACH
BACK COPIES	.35	EACH

(Payable in U. S. Funds)

PICKING IT UP AND PUTTING IT DOWN.

In a letter of invitation to the National Materials Handling Exposition held several weeks ago, this paragraph appeared:

"It has been estimated that as much as eighty percent of unskilled labor in this country is engaged solely in unproductive employment of picking materials up, moving them, and putting them down again. Approximately 22 per cent of all labor cost of American industry is devoted to this same unproductive activity."

The letter went on to say that the mechanization of handling represented one of the most promising developments of the next few years to industry, labor and consumers alike.

In other words mechanization saved labor and labor's cost.

We wonder how many man-hours are wasted daily in "picking things up and putting them down". In our own case we find that the mere disposal of papers, in one file or the other, to other people, to correspondents, takes up a large portion of our time. The only alternative is to have a desk stacked high with papers of all sorts where nobody can find anything! We have in fact seen some executives' desks which answer that description.

Sometime ago we had occasion to stop in an office which transacted business of a highly confidential character. The man on whom we called had his desk absolutely clear, not even a tool, except the pen which he was using, could be seen. When we expressed amazement he explained that the firm for which he worked did not *allow* its employees to have more than one set of papers on their desks at a time.

While it is not always possible to keep the desk *absolutely* clear we find it really helps efficiency to keep the desk as clear as possible—a convenient file, or desk drawers, can be used to place papers in temporarily, allow-

in only those in use at the moment to accumulate on top of the desk.

A MONOPOLY INQUIRY

An excellent editorial under the above title appeared in the May 24th issue of the Wall Street Journal (published at 44 Broad St., New York 4, N. Y.)

The main idea of the editorial, as we read it, is that just because an industry is big, it does not necessarily follow that it is a monopoly. One paragraph puts this idea in a nutshell—it reads: "Anything which must produce in large quantity for a national market to achieve economies in production can only fulfill its function by being big. By and large these are the mass production industries. They are big because they have to be big and not because someone sat down in a dark room with two or three other people and plotted it that way."

Another quite forceful paragraph says "The idea that similar prices result from agreement is silly".

In view of the recent and present activities of the Department of Justice in inquiring into monopolistic tendencies on the part of various industries, the editorial is timely and gets down to rock bottom on the subject.

A SOURCE OF ASBESTOS DATA

If you are not familiar with the magazine *Chemical Abstracts* and are interested in technical articles concerning asbestos, we suggest you consult that publication regularly (in some large public library).

Chemical Abstracts is published twice a month by The American Chemical Society, at 1155 16th St., N. W., 6, Washington, D. C. and frequently contains references to articles on asbestos, or referring to asbestos, published in these United States or in other countries. The subscription price, we understand, is $15.00 a year.

In December of each year a subject index for that year is published—consultation of this index for 1947 may bring some interesting technical articles to your attention.

This suggestion really comes from one of our readers, and we felt was worthy of passing along.

INSULATION FOR GAS TURBINE POWER PLANTS.

The newest type power plant to appear on the post-war scene is the gas turbine plant which is rapidly being developed for commercial use. As the name suggests, gas turbines will use high temperature gas, or strictly speaking, high temperature air, as the motivating fluid. In all gas turbine installations, because of the high temperatures involved, asbestos insulation will be used extensively.

Gas turbines, in the smaller sizes, were perfected between the two World Wars. During World War II they were known best as "superchargers" used as auxiliaries of airplane power plants. Used with plane power plants they utilized exhaust gases and drove compressors which put the inlet combustion air under pressure, relieving the main plant of this job, and consequently released more power for plane propulsion. At the higher altitudes, much of the power developed by planes is actually used up drawing in the air required for fuel-burning; this is due to the fact that at the higher altitudes air is rarified and the volume required increases tremendously.

Large scale gas turbine power plants consist, essentially, of a combustion chamber, turbine, compressor, and preheater; normally the turbine will drive an electric generator, either d. c. or a. c. In all gas turbine operations the temperatures used are high. The combustion chamber will operate at from 2500 to 3000 deg. F and the gases, or heated air, will enter the turbine at from 1300 to 1500 deg. F.

The science of gas turbines has been known for many years, but their development as power plant prime movers was delayed because of the inefficiency of available compressors. European research produced, in recent years, an axial flow compressor which now permits the use of gas turbines on a commercial scale. Since this type of turbine operates exclusively on a gas it is obvious that very large volumes are required to get any appreciable power output at the shaft. Earlier compressors were so inefficient that all of the power produced by the turbine was required to

supply its own air. At the present time a 12,000 horsepower gas turbine will produce about 3000 horsepower for use; the remainder of the power is used up in compressing the air.

The question usually arises as to why a gas turbine can be commercially successful if so much of its developed power must be used for compressing its own air. The answer is that advances made in metallurgy permit high temperature operation which in turn produces high thermal efficiency in the plant. Ordinarily Diesel power plants operate at a thermal efficiency between 25 and 30%; the best steam plants operate at something less than 25%. Both these types are expensive on a first cost basis and their maintenance costs are high when compared with gas turbines. They also involve the use of many auxiliaries such as condensers, boilers, circulating pumps, expensive lubricants, etc. The gas turbine uses no water, lubrication is a simple problem; none of the maintenance common to reciprocating engines, such as Diesels, or boilers, is present when gas turbines are used.

In addition to the high thermal efficiency of gas turbines, research is producing a plant that will burn bituminous coal with the same efficiency at which oil may be used, and at one-third the operating cost.

The coal burning gas turbine plant will involve more equipment than oil-burning units of the same power output. This, of course, is due to the fact that the coal must be finely pulverized before it can be used while oil is ready for use when it is received from the refinery.

High grade asbestos insulation will be used in gas turbine plants thruout. First, the combustion chamber, or "combustor", will be totally enclosed in a high pressure shell. This is necessary since the gas, or highly heated air, must enter the turbine under 50 to 60 pounds pressure. The fuel will be burned at a high rate—as much as ten times the rate common to conventional furnaces. In the combustor, prevailing temperatures will run up to 3000 deg. F. This temperature is reduced to operating temperature by adding additional air (about 600% of that required for burning the fuel) which will lower the temperature to

the allowable for inlet conditions. The large volume of air is actually a carrier of heat for the turbine. Under 50 to 60 lb. pressure and about 1350 deg. F. the velocity of the gases thru the turbine is high.

To prevent high heat loss the outer jacket of the combustor must be heavily insulated and the insulating material will be applied to the combustor shell in the usual manner, common to boiler drum insulation. Block asbestos insulation, will comprise the main "jacket" around the combustor to prevent heat loss. The insulation is applied with asbestos cement to prevent heat leakage. Over the entire jacket of insulation application of asbestos cloth will be required so that the entire exterior may be coated to prevent wear and tear on the insulation.

Both the inlet duct to the turbine and the turbine itself must be heavily insulated to prevent heat loss and to retain a proper distribution of the high temperature in the turbine structure itself.

The exhaust gases leaving the gas turbine will be about 600 deg. F. and the exhaust duct and the preheater which follows it must be insulated against heat loss.

When the exhaust gases leave the turbine they are used to heat the incoming combustion and tempering air. The application of asbestos insulation to the air preheater poses no particular problem other than the problem involved in insulating conventional air preheaters in steam boiler installations. For structural reasons the air preheater will be cylindrical so that the surfaces to be insulated will, for the most part, be curved. Here again techniques used in the insulating of boiler drums will apply.

In the case of gas turbine locomotives the practice of insulating surfaces will undoubtedly follow that common to the practice in the conventional steam locomotive field. Because of the excessive vibration and jarring the insulating jackets must be firmly supported. The insulating material will be subjected to a constant vibrating action of high frequency (due to the high rotative speed) and proper protection must be provided. To insure the life of the insulating materials it will be desirable to provide steel lagging to contain the asbestos. Ducts, and possibly the

turbine shell, may not require such lagging, but structures such as the combustor and air heater, are most likely to be used as mountings for other apparatus and steel outer jackets will be necessary to provide protection for the insulating materials.

Where coal is used as fuel in gas turbines high temperature air is required for drying. Drying is necessary in locomotive installations because of the method used for pulverizing the fuel. The pulverization of coal by the "flash" or "atomizing" principle requires that the coal be conveyed in a high pressure air stream. Since coal will not flow in air if it contains moisture to any extent it is important that all moisture be removed. In locomotive practice wet coal is quite frequently supplied.

The proper drying of the coal, prior to pulverization, will be done by using a portion of the exhaust gas from the turbine to evaporate the water. Ductwork from the turbine to the dryer, and the dryer itself, must be insulated for around 600 deg. F. With certain types of coal it may be necessary to use lower drying temperatures. In the drying process the heated air will come into direct contact with the coal, and with coals of high volatile content a lower temperature than 600 deg. F. will be safer.

Due to the fact that large quantities of exhaust gas at 600 deg. F. will be available, some installations may justify the jacketing of the entire coal bunker to provide drying. In such installations the bunker surfaces will be flat and the practice common in insulating ductwork will prevail.

In all gas turbine installations used in locomotives it is important that ample supports be provided for the insulation since shocks and vibrations are much more common than in other applications.

For the long range future insulating materials for gas turbine power plants are now in the development stage. Since the developments in materials will restrict temperatures, for the time being, to outlet gases (from the combustor) in the order of 1500 deg. F. and combustor maximum temperatures to around 1900 deg. F. it is agreed that standard asbestos insulating materials such as molded blocks of the diatomaceous silica type will be adequate for

1900 deg. F. and that for the air preheater ("regenerator") where the exhaust gases will not exceed 600 deg. F. insulating materials such as 85% Magnesia will be suitable.

Gas turbine locomotives are now a reality and they offer an entirely new field for the application of asbestos insulation for high temperatures. At the moment this art is in its infancy, but like many other new ideas of the past, new methods and techniques will be developed so that as the industry grows practices will become standardized.

SOIL-HEATING CABLE

The soil heating cable being marketed by the General Electric Company consists of a high-resistance conductor covered with felted asbestos, varnished cambric and a protective lead sheath.

It can be used in a hotbed, cold frame or greenhouse bench. A thermostat controls the temperature by turning the heat off and on automatically.

Other uses for this cable are protecting pipes and valves from freezing, freeing sidewalks and other surfaces from ice, warming poultry water and brooders and heating of floors.

ASBESTOS CORD

Asbestos Cord is made from strands of strong 1, 2 or 3-ply yarns tightly twisted together into a hard-finished, even-diameter cord of the required size. It has a wide application in the electrical industry for supporting electric-resistance wires. It is also used in the joints and seals of melting and heat-treating furnaces. Elements in electrical pads and blankets are made by wrapping wire around Asbestos Cord and then covering the wirewrapped cord with asbestos roving.

Asbestos Cord is also especially serviceable in glass and chemical works for suspending metals, retorts and crucibles in contact with flame or heat and as packing for small valve stems.

. . . —

Complete success is not purchased at any one time but rather on the installment plan.

ASBESTOS DISTANCES

How far are asbestos mines located from centers of civilization? In some cases the distances are quite impressive, even in these days of air travel.

With this thought in mind we have assembled the following:

Thetford Mines, in or near which most Canadian asbestos mines are located, is 71 miles from Quebec City, and 68 miles from Sherbrooke, or roughly halfway between the two places, on the Quebec Provincial Highway No. 1.

The Vermont Mine at Lowell is one mile by aerial tramway to the mill at Eden; 15 miles from Hyde Park, Vermont.

In Arizona most of the mines lie about 25 miles north of Globe, altho there are some deposits as near as three or four miles to that town. And, according to the map, Globe is approximately 60 miles from Phoenix, Arizona.

Africa—it is 63 miles by railway from Shabanie to Sonambula; the Mashaba District is 46 miles east of Shabanie and 26 miles west of Victoria. The Havelock Mine is 55 miles from Railhead at Hectorspruit; 126 miles by aerial ropeway to Barberton. The nearest village to the mine (Piggs Peak) is 12 miles away.

In Italy, the principal deposit, at Balangero, is 20 kilometers (about 12½ miles) north of Turin.

U. S. S. R.—The asbestos mines in Russia are located at Asbest, which is 60 miles from Sverdlovsk, and Sverdlovsk is in turn, approximately 950 miles from Moscow.

Australian distances are quite impressive also. The Blue Asbestos Mines in course of development by Australian Blue Asbestos Limited, at Wittenoom, are 250 miles from Roebourne, which in turn is about 1,000 miles north of Perth. The nearest railway to Wittenoom is at Meekatharra, 600 miles away.

If you can add to this list write us.

• • • —

Self-confidence is the first requisite to great undertakings—Samuel Johnson

ASBESTOS DEPOSIT AT SAN VITTORE (BALANGERO) ITALY

Report made by Prof. Massimo Fenoglio, of the University of Turin, (assisted by Prof. E. Sanero) on January 20, 1942. A geological-mineral study of the region of San Vittore at the request of S. A. Cave di San Vittore of Balangero, Italy, the largest producers of asbestos in that country.

The mineral zone above mentioned belongs topographically to the extreme easterly extent of the Torino lower Alps, constituting, orographically, a modest chain by itself, to which belong, moving around from the west to the east, Bricco Forcola, San Vittore, Monte Rolei and, to the south of the last mentioned, Monte Giovetto, known by the name of Colli di San Vittore (the San Vittore Hills) from the small sanctuary of the same name, situated almost at the center of the chain itself, and on the crest which divides the Balangero countryside (lying at the base of the southern slope) from that of Corio, located on the edges of the north, northeastern slope.

From the geological point of view, the asbestos bearing mineral zone falls in the mesozoic pennitic ophitics, which in the adjacent Valli di Lanzo reach a truly imposing development.

These ophiolites in the hills of San Vittore are represented petrographically by serpentine-peridotitic rocks, and come into contact in the north, west and northwest, with minute gneiss. These, in strata, appear also here and there intercalated in the same serpentine-peridotitic rocks, always showing, in every case, clear phenomena of contact metamorphism, determined by the ultrabasic peridotitic magma, from which the latter have their origin. Then, to the east, to the southeast and to the south of the serpentine peridotitic massif, extends a covering of rather considerable pleistocene terrain, made up of terraced pebbly, clayey, earthy alluvia, more or less ferrized (Diluvium) with the interspersion at some points, among serpentine-

peridotitic masses and diluvium, of small areas covered with marginal detritus.

The asbestos bearing mineralization is located, as indicated above, in the ophiolitic-serpentine-peridotitic formation, made up essentially of serpentine, generally highly laminated, and, more rarely, solid, and of serpentine schists, strongly folded, at times completely vertical, with very marked schist texture, as well as, not infrequently, foliated. The careful examination of the outcroppings of the region shows that these serpentine-peridotitic rocks are almost always more or less slightly mineralized by asbestos, while more rarely, they show considerable mineralization, which may be of interest from the practical mining point of view.

The asbestos within the serpentine-peridotitic mass appears in different types of deposits, according to whether we find it in the serpentines or in the serpentine schists.

In the serpentine it appears in coatings in the lithoclases, with the fibre arranged parallel to the plane of lamination of the rock, and in veins of a few millimeters thickness, with the fibres normally arranged towards the walls; the first type predominates decisively over the second type of deposit.

In the serpentine schists, on the other hand, the asbestos appears distributed homogeneously in the rock, with the fibre arranged parallel to the planes of schistosity in the rock itself.

These different types of deposits are already ascertainable by the expert eye, microscopically, and in every case are confirmed by microscopic examination of the thin cross sections of the serpentine-peridotitic mineralized rocks.

The areas in which the serpentines and the serpentine-schists are more considerably mineralized and which can be considered to be practically exploitable, are located essentially in two points of the zone: one which corresponds to the region already worked and at present being worked and the other which corresponds to the region of the Monte Rolei.

In the first region, comprised between Bricco Forcola

and the Sanctuary of San Vittore, in addition to the mineralized areas already noted on the southern slope, actually being worked, other areas were observed on the northern slope of the Bricco Forcola with asbestos bearing mineralization quite homogeneous and constant, and almost identical to that of the southern slope, as, moreover, has been confirmed by the examination of samples taken from the prospecting adit recently opened above the Santa Barbara funnel. The continuation of this mineralization, altho somewhat more slightly, was further noted to the east of the Celesia funnel, both on the southern slope as well as the northern, as far as the vicinity of the exploration adit of Cornuto, to the north of the Santuario (Sanctuary) of San Vittore.

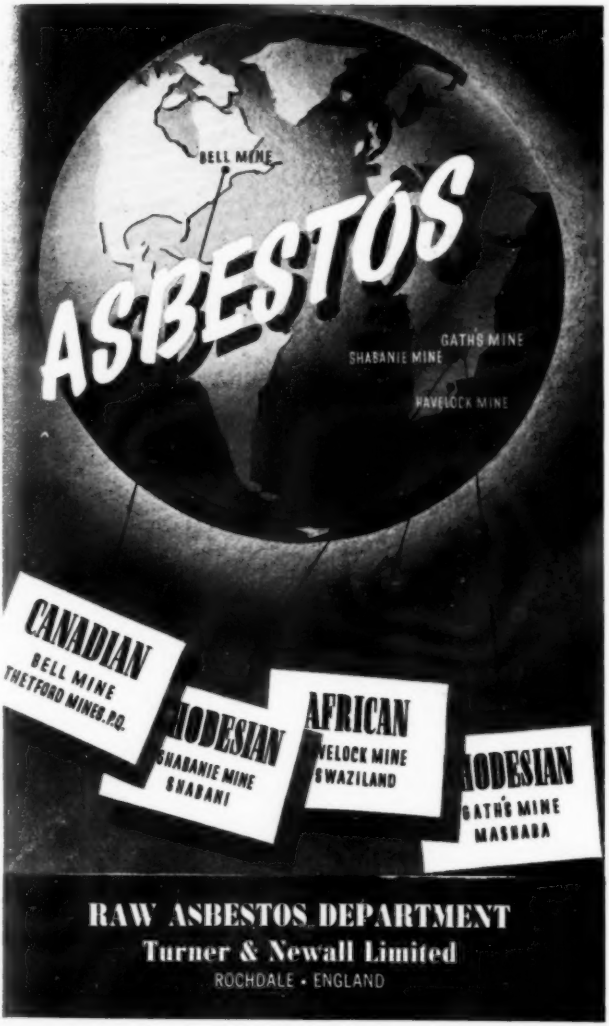
In the region of Monte Rolei, there was noted a series of outcroppings of serpentine and serpentine-schists with good mineralization: one of these is located to the west of the summit of Monte Rolei and is constituted of serpentine-schists which are considerably mineralized; another outcropping in the northwest of the summit itself is also made up of serpentine-schists, but deeply altered and in part decomposed, with, however, considerable mineralization; lastly, to the south and the southwest of the same Monte Rolei there was found a really outstanding area which branches into two parts, one of which pushes as far as the Bassa di Cianel; the other extends, on the other hand, towards the southwest, as far as southwest of the Barutello Cascina (Dairy). In this last mentioned area of the asbestos bearing mineralization, in all, it appears to be really good, and at some points, as, for example to the southwest of the Cascina Barutello (Barutello Dairy) the outcroppings of serpentine-schists appear to be the most richly mineralized in asbestos (with quite long fibre) of all of the serpentine-peridotitic rocks studied in the concession.

On the whole, if, on the one hand the mineralized zone may appear relatively restricted in comparison with the larger extent of the serpentine-peridotitic masses which outcrop in the concession, on the other hand, it is nevertheless such as not to give reason for worry, for the immediate

future of the working, *assuming that the mineralization continues in depth homogeneously like the outcroppings, and supposing that the present amount of production, (around 10,000 tons per year) is not materially changed.* In fact, if it is difficult to proceed to the evaluation and conjecture, of an economic nature, for any type of deposit, it becomes still more delicate in this case, where in several areas (region of Monte Rolei) in which the serpentine-peridotitic masses appear as mineralized in the outeroppings, exploration work which would offer the basis for a concrete evaluation of the deposit, is completely lacking. However, a person exploring carefully the region which I have described as feasibly mineralized, and therefore industrially exploitable, has the definite impression that the quantity of asbestos extractable, with a funnel type of working as is being practiced at present, must in all likelihood be considerable, because the volume of the asbestos bearing serpentine-peridotitic masses, for which the asbestos can be extracted, in average content vary between 11.5% and 12%, and in the neighborhood of some tens of millions of tons.

Now, assuming that the content of this deposit is that indicated above, there naturally follows the need to examine the question that I have been asked, regarding the eventual possibility of constructing another complete new establishment, with an annual production similar to that at present established, namely, of around 10,000 tons. As regards the suitability of erecting this new establishment, which would work the material brought from the northern slope of the hills of San Vittore, it seems to me that before undertaking such a decision, it would be wise to ascertain, with further exploratory work, that actually the asbestos bearing mineralization noted in the outeroppings of the serpentine-peridotitic masses in the said slope, does show a certain homogeneity and continuity in depth as well, in all the areas which appear as mineralized in the outeroppings.

That seems to us to be all the more advisable when it is considered that here we may find ourselves in topographical-geological conditions of a peculiar nature, not always


BELL MINE
ASBESTOS
GATHS MINE
SHABANIE MINE
HAVELOCK MINE
CANADIAN
BELL MINE
THETFORD MINES, P.Q.
RHODESIAN
SHABANIE MINE
SHABANI
AFRICAN
VELOCK MINE
SWAZILAND
RHODESIAN
GATHS MINE
MASHABA
RAW ASBESTOS DEPARTMENT
Turner & Newall Limited
ROCHDALE • ENGLAND

favorable to exploitation. In fact, the presence of considerable strata of minute gneiss outeropping in the region of Bricco Forcola next to the stream Fandaglia would imply the opening and extending of cartage galleries thru a good stretch of gneissic mass, rather prone to falling, with the necessity therefore of burdensome framework. To this is added the fact that the cartage plan of the said region could not be kept on the level of the present cartage plan of the southern slope. Lastly, it should not be forgotten that at some points the serpentine-peridotitic mineralized rocks, for considerable areas, are covered with a considerable covering of superficial earth, the removal of which, in our case, would be economically somewhat onerous.

ASBESTOS BLANKET USEFUL IN ACCIDENT

An asbestos blanket was found most useful in an automobile accident which occurred in the Bronx (N. Y.) recently.

The car, which was crossing the 145th Street bridge over the Harlem River, skidded on wet pavement, struck the guard rail on one side of the bridge, ricochetted and smashed itself against the opposite rail. The motor was dislodged and pushed back, pinning the driver, a Mr. Jones, to the seat.

It was necessary to use an acetylene torch for twelve minutes to set the man free. So a police emergency squad wrapped an asbestos blanket around Mr. Jones and proceeded to cut him free. Tho somewhat seriously hurt, the man smoked a cigarette while the policeman worked with the torch.

It was well the emergency squad carried an asbestos blanket as part of its equipment.

* * * —

The American Lumberman, April 10th issue, in its Section 9 —"Roofing, Shingles and Siding" devotes more than two pages to the subject of Asbestos-Cement Shingles and their application. Section 7 of the same issue headed "Board Products" gives about the same space to Asbestos-Cement Board.

MARKET CONDITIONS

GENERAL BUSINESS

There has not been much change in general business since last month. Political activities still cloud the true situation.

Strikes are disturbing but are under somewhat better control than formerly. If Union leaders could only be made to see that it is to the ultimate good of their organizations to negotiate without resulting to force! And to realize that nothing is accomplished by rising wages if it results, as invariably it does, in rising prices.

Prices on practically everything remain at exceedingly high levels, if forced upward any further there is no telling what may happen.

ASBESTOS - RAW MATERIAL

The overall demand for Asbestos Fibre continues at the high rate of the past year with occasional softening from particular industries. No appreciable excess, however, has been developed as a result of these temporary conditions.

ASBESTOS - MANUFACTURED GOODS

Asbestos Textiles. Demand for all types of asbestos textiles with the possible exception of rovings, remains strong. This is especially true of cloth, and to some extent of tape. One manufacturer states their present backlog of orders provides shipment of tapes within 4 weeks, cloth deliveries are from seven to eight weeks. When vacation periods start, however, production will lag and delivery will take longer.

Brake Lining. According to preliminary figures, April sales are about $250,000 lower than those for the same month last year, and much lower than those for March 1948. Not only are the sales for domestic consumption declining from April 1947 and March 1948, but exports are following the same trend.

Asbestos Paper. Demand for this commodity con-

inues strong. This is true also of saturated paper, the equirements in that market exceeding production.

Asbestos Millboard. Production is not up to demand ecause of scarcity of asbestos fibre. Prices are firm.

Insulation. High Pressure. Heavy demand continues for all sizes; certain sizes of standard thick 85% Magnesia are subject to as high as 46 weeks delivery altho other sizes can be supplied in two to three months. Blocks are currently promised in about 22 weeks. Buying in the past several months has been consistent and continued heavy demand is indicated. Price increases have recently been made effective by some manufacturers, we understand.

Insulation. Low Pressure. This market shows a continued strong demand.

Asbestos-Cement Products. The general requirements in asbestos-cement roofing and siding shingles are still high, with some slackening on the Pacific Coast.

Production of corrugated and flat sheets does not meet the orders received.

The above comments have been sent us by men in close touch with different fields; they have been combined carefully. Send us your ideas. We need as many opinions as possible to give an all-round picture of the situation.

AUTOMOBILE SALES

	April 1948
Passenger Cars	308,071
Motor Trucks	128,963
Motor Coaches	1,048
	438,082

March total sales were 492,013; while sales in April 1947 totalled 423,399.

These figures cover only cars made in the United States.

(Figures supplied by the Automobile Manufacturers Association, New Center Building, Detroit 2, Mich.

STANDARD PIPE SIZE, INCHES
LENGTH OF PIPE LINE, FEET
TOTAL GALLONS IN PIPE
A
B
C

CHART SHOWING VOLUME OF ANY STANDARD PIPE

Do you need to know the volume of a given length of pipe in gallons?

The chart opposite gives all of the standard pipe sizes from ¼ to 15" in column **A**, and any length of pipe line from 0.1 foot to 800,000 feet in column **B**. Column **C** shows volumes from 1 to 1,000 gallons. The chart will therefore take care of most conditions.

To use the chart simply run a straight line thru the pipe size (column **A**) and the length of pipe line in column **B**. The intersection with column **C** immediately shows the total number of gallons in the pipe or pipe line.

For instance, the dotted line drawn across this chart shows that if the pipe size is 2-½" (column **A**) and the length of line is 400 feet (column **B**) the volume of the pipe (column **C**) is 160 gallons.

Vice versa if it is desired to know the length of the pipe line required to hold a given number of gallons, or the size of pipe necessary to hold a given number of gallons within certain limitations of length, the chart may be conveniently applied. In other words knowing two factors in any two of the three columns, the unknown in the third column is quickly found.

In using charts of this type there are a number of good "tricks" to know. For instance, to determine the volume of a ½" pipe one foot long, the easiest way is to run a line thru the ½", column **A**, and the 10,000 in column **B**. The intersection with column **C** says 160 gallons, but that, of course, is for a pipe line 10,000 ft. long. By merely pointing off four places to the left we have 0.016 gallons as the volume of a ½" pipe one foot long.

THE PLYWOOD INDUSTRY USES QUANTITIES OF 85% MAGNESIA

An important and growing consumer of 85% Magnesia pipe covering and blocks is the Douglas fir plywood industry of the Pacific Northwest,—Oregon and Washington producing two-thirds of the plywood used by the nation. In these two states, the industry has approximately $40,000,000 invested in plans and timber resources, employs some 10,000 persons and has an annual output estimated at $80,000,000.

The tremendous development of the industry since pre-war years is shown by the statistics—in 1938 two Oregon and 19 Washington plants produced 650,000,000 board feet of plywood; in 1941 11 plants in Oregon and 22 in Washington produced 1,390,000,000 board feet.

Altho the industry has been expanding for several years before 1938, beginning with introduction about 20 years ago by I. F. Laucks, Seattle, of soybean glues, World War II gave impetus to three other major developments—plastic-surfaced panels, paper-faced veneer and extra large panels.

At the new Weyerhaeuser Timber Company plywood plant at Longview, Washington, E. J. Bartells Company, insulating contractors, recently installed 4500 lineal feet of 85% magnesia covering of special thickness, on two 6 in. main steam lines—a 3000 foot line extending from the company's power plant, and a 1500 foot line from the shingle mill to the new plywood operation. This covering is protected from the weather by a 55-pound, smooth-surfaced rolled roofing.

Inside the plant the contractors have installed 4000 lineal feet of 85% Magnesia Covering on pipe ranging in size from ½ in. to 6 inches, and 1200 square feet of 85% Magnesia Blocks on various vessels, including water storage and heating tank, solium carbonate working tank, water solution and weigh tank, adhesive mixer tank, primary caustic soda storage tank and flash drum.

Another Portland concern, the Pacific Asbestos & Supply Company, recently installed in the new plywood plant of the Fir Manufacturing Company, Myrtle Creek, Ore., 3000 lineal feet of double-thick 85% Magnesia covering on high pressure steam lines ranging in size from 3½ in. to 8 inches, and 1500 square feet of 3 in. high temperature and magnesia blocks on the boilers. The Pacific Company also has a contract for a similar, tho larger, installation in the veneer factory which the Harbor Plywood Corporation of Hoquiam, Washington, is building at Riddle, Ore.

It is reported that a plywood plant has recently been completed at Arcate, California, and another is contemplated in Northern California; also one in Tacoma, Washington.

LEARN FROM POLITICAL TACTICS

A Lesson In Selling

From the politician the salesman can learn many things that will help him in his daily rounds, especially in his contacts with people, present or potential customers.

The practical politician will tell you: "It is easy to get people to vote your way if they like you and want to be persuaded."

Note that clause—"if they like you". It is important in politics, but just as important in salesmanship.

The new salesman starts with a clean slate: he has no enemies. That is a great asset. But, as time goes on, unless he is careful, he makes enemies, more and more of them, until the scales begin to tip in favor of enemies rather than friends. The good politician and the good salesman try to so conduct themselves that real enemies are greatly in the minority. They do favors for people; they steer clear of arguments on touchy subjects; they go that extra mile to make a friend of a casual acquaintance or lukewarm prospect.

"Keep out of inter-party fights" is another axiom of the successful, practical politician. Translated into salesmen's language it reads "Don't get into fights with other

salesmen, either those representing your own company or those traveling for a competitive concern.'' Compete—compete hard—for business, but don't let the competition get on a personal basis.

''Know the value of an intermediary''. The politician knows that sometimes, working thru a friend who is a friend of a man in the other camp, a vote for *his* party can be secured. The good salesman knows that it sometimes helps to swap territories with another salesman, that many concerns he can't sell will be sold by the other man, and vice versa. He knows, too, that sometimes he can reach the Boss by ''selling'' himself and his house to someone close to the Boss.

And, finally, the practical politician knows that the way to build up votes for his party is not to sit hours on end down at headquarters. To get the votes it is necessary to get out and meet people. The same is true of the salesman. He doesn't build volume in his territory by sitting in an overstuffed chair in some hotel lobby for the best part of a day; he only builds sales when he is out in direct contact with customers and prospects.

. . . —

A five-day conference on problems of store modernization to coincide with the International Store Modernization Show at Grand Central Palace, New York, July 6th to 10th inclusive, has been announced by Dr. Charles M. Edwards, dean of the Graduate School of Retailing, New York University and chairman of the advisory and planning committee of the show.

PRODUCTION STATISTICS

Africa (Rhodesia)
(Published by Rhodesia Chamber of Mines)
Production for February 1948 ..... 5,8[illegible]5.38
Valued at ..... £223,2[illegible]2

Africa (Swaziland)
Production for March 1948 ..... 2,500 tons (2000 lbs.)

Canada
(Department of Mines, Province of Quebec)
Production for March 1948 ..... 62,525 tons (2000 lbs.)
Compared with March 1947 ..... 57,157 tons (2000 lbs.)

By Grades — All tons 2,000 lbs.

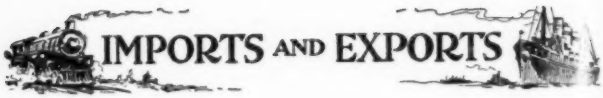
	1st. Qr. 1948	1st Qr. 1947
Crude	228 tons	242 tons
Fibres	49,940 tons	50,360 tons
Shorts	109,115 tons	92,821 tons
	159,283 tons	143,423 tons

CONSTRUCTION CONTINUES AT HIGH LEVEL

The dollar volume of construction contracts awarded in the thirty-seven states east of the Rocky Mountains was sustained at a record breaking level in April, with sharp gains over March and over April of last year, according to F. W. Dodge Corporation.

The total of contracts awarded in the eastern states reported for April was $873,882,000 and represented an increase of 27% over March and 45% over April 1947.

The cumulative volume for the first four months of this year was $2,860,818,000. This total was 29% greater than that reported for the corresponding four months of 1947.



Imports into U. S. A.
(Figures by Bureau of Census)

	February 1948 Tons (2240 lbs.)
From Canada	115,980
S. Rhodesia	293
Union of S. Africa	629
U. S. S. R.	196
Mozambique (Africa)	146
	117,244
Value	*$2,215,609*
By Grades:	
Crude No. 1 (Chrysotile)	
Canada	24
S. Rhodesia	25
Crude No. 2 (Chrysotile)	
Canada	20
U. of South Africa	5
Crude Other—(Chrysotile)	
S. Rhodesia	268
U. S. S. R.	196
Crude—Blue	
U. of S. Africa	19
Mozambique	121
Crude—Amosite	
U. of S. Africa	605
Mozambique	25
Textile Fibres (Chrysotile) Canada	1,155
Shingle Fibres (Chrysotile) Canada)	4,582
Paper Fibres (Chrysotile) Canada)	4,379
Short Fibres (Chrysotile) Canada)	105,820
	117,244

Manufactured Asbestos Goods: Asbestos Yarn	February 1948 Quantity (Lbs.)	Value
Canada	6	$ 2
United Kingdom	3,186	2,521

(Continued on Page 40)

Imports Continued	February 1948	
Asbestos Packing—Fabric	Quantity (Lbs.)	Value
United Kingdom	3,459	2 89
Asbestos Packing—Not Fabric		
Canada	300	33
United Kingdom	3,143	2 44
Asbestos Woven Fabric—(Other)		
Canada	50,010	4 01
United Kingdom	1,274	84
Asbestos-Cement Products—(Not Impregnated)		
Canada	126,495	3 486
Asbestos-Cement Products (Impregnated)		
Canada	2,980	150
Belgium	22,361	2 042
Asbestos Brake Lining (Molded)		
Canada	297	256
Asbestos Manufactures (Other)		
United Kingdom		5
	213,511	$19 113

Exports from U. S. A.

(Figures by Bureau of Census)

Unmanufactured Asbestos	February 1948 Tons (2240 lbs.)	Value
To Brazil	287	$108.509
Venezuela	33	15.240
Italy	9	2,700
Norway	43	16,560
Curacao	9	750
Germany	197	9,900
Other Countries	3	248
	581	$153,907

Manufactured Asbestos Goods:		February 1948 Quantity	Value
Asbestos Paper, Mlbd. & Rlbd.	Lbs.	79,117	$ 15,583
Asbestos Pipe Covg. & Cement	Lbs.	235,308	16,240
Asbestos Textiles & Yarn	Lbs.	58,918	48,920
Asbestos Packing	Lbs.	219,909	258,088
Asbestos Brake Lng. (Mld.&S-Mld.)	Lbs.	312.572	283,514
Asbestos Brake Lng. (Woven)	Lin. Ft.	76,656	49,453
Asbestos Clutch Fcgs. (Mld.&S-Mld.)	No.	81,243	40,635
Asbestos Clutch Fcgs. (Woven)	No.	26,801	17,084
Asbestos Brake Blks. (Mld.&S.-Mld.)	Lbs.	33,853	29,031
Asbestos Brake Blks. (Woven)	Lbs.	1,646	1,732
Asbestos Sheets	Lbs.	327,649	29,646
Asbestos Roofing	Sqs.	13,025	155,886
Other Asbestos Manufactures	—		100,886
			$1,046,698

NEWS OF THE INDUSTRY

BIRTHDAYS

E. B. Poulin, Secretary-Treasurer, Asbestonos Corporation Limited, St. Lambert, Montreal, P. Q., Canada, June 20.

Harold W. Donnelly, Sales Manager, Norristown Magnesia & Asbestos Co., Norristown, Pa., June 22.

W. H. Dunn, Treasurer, Raybestos-Manhattan, Inc., Passaic, N. J., June 22.

C. A. Schell, Vice President, Thermoid Company, Trenton, N. J. June 22.

Walter G. Cowan, Vice President and General Manager of Manufacture, The Ruberoid Co., New York City, June 26.

A. H. Bennett, President, A. H. Bennett Co., Minneapolis, Minn., June 27.

H. A. King, Manager, Industrial Department, The Ruberoid Co., New York City, June 28.

L. B. Palmer-Ball, President, Palmer Asbestos Co., Louisville, Ky., June 29.

Frank R. Schueler, Vice President and Secretary, Asbestos, Asphalt & Insulation Mfg. Co., Chicago, Ill., June 30.

Vincent W. Hemphill, Secretary, Standard Asbestos Mfg. Co., Chicago Ill., July 1.

S. E. Breuleux, Treasurer, The Philip Carey Mfg. Co.,Lockland, Cincinnati, Ohio, July 6.

Chas. S. Wood, Treasurer, Chas. S. Wood & Co., 27 Lombardy Place, Newark, N. J., July 6.

O. C. Smith, President, Bell Asbestos Mines Ltd., Thetford Mines, P. Q., Canada, July 7.

John D. "Scotty" Boyd, Vice President and General Superintendent, Asbestos Fibres, Inc, N. J., July 7.

G. K. McKenzie, Secretary, The Flintkote Co., New York City, July 7.

Capt. W. A. Janitch, R. E., Representative in Great Britain for Asbestos Corporation Limited, London, England, July 10.

A. M. Ehret, Jr., President, Ehret Magnesia Mfg. Co., Valley Forge, Pa., July 11.

H. W. Prentis, Jr., President Armstrong Cork Co., Lancaster, Pa., July 11.

Thomas L. Gatke, President, Gatke Corporation, Chicago, Ill., July 16.

Arthur R. Hahn, Engineer, Asbestos-Cement Associates, Inc., Millington, N. J., July 16.

To all these gentlemen we extend congratulations on the occasion of their birthdays.

FREDERICK E. BYRNES
Elected V. P. of Ruberoid

Frederick E. Byrnes

Frederick E. Byrnes, formerly assistant to the President of The Ruberoid Co., has been elected Vice President of the Company in charge of industrial relations.

Mr. Byrnes has been associated with Ruberoid for the past twelve years, having been first engaged as assistant to the vice president in charge of manufacturing. Prior to that he had been vice president and general manager of Vermont Asbestos Corporation, which was acquired by Ruberoid in 1936 and is now operated as Vermont Asbestos Mines, Division of The Ruberoid Co.

UNION ASBESTOS & RUBBER CO. — 1st Quarter Report

Union Asbestos & Rubber Co. reported Profits after Federal Taxes, for the first quarter of 1948, of $405,963.96 or 82c per share. For the corresponding period last year earnings were $222,739.46 or 45c per share. Comparative data follows:

	1st Qr. 1948	1st Qr. 1947
Earnings per share	$ .82	$ .45
Net Sales	3,683,491	2,117,107
Profit before Federal Income Tax	654,781	359,257
Federal Income Tax	248,817	136,518
Net Profit	405,964	222,739
Common Dividends	86,517	86,692
Surplus	319,447	136,047
No. of Capital Shares Issued	495,376	495,376

J-M DIRECTORS ELECTED

At annual meeting held on May 14th the stockholders of Johns-Manville Corporaion re-elected all nine directors, viz:

Walter H. Aldridge, President Texas Gulf Sulphur Co.; Lewis H. Brown, Chairman of the Board, Johns-Manville; Enders M. Voorhees, Chairman of the Finance Committee U. S. Steel Corp; E. T. Stannard, President Kennecott Copper Corp.; Henry C. Alexander, Vice President J. P. Morgan & Co., Inc.; R. W. Lea, President, Johns-Manville; John W. Haines, Director and Chairman of Executive Committee, U. S. Lines Co.; H. E. Manville, Jr.; Alvin Brown, Vice President Johns-Manville.

PABCO DECLARES DIVIDENDS

The Board of Directors of Paraffine Companies, Inc., recently declared the following dividends: Regular quarterly dividend of $1.00 per share on the 4% Cumulative Convertible Preferred Stock, to stockholders of record July 1, 1948, payable July 15th; Dividend of 30c per share on the Common Stock to stockholders of record June 7, 1948, payable June 26th.

ASBESTOS CORPORATION LIMITED
Appointments

The Asbestos Corporation Limited announces the appointment of *A. L. Penhale* as General Manager and Secretary. Mr. Penhale was formerly Manager and Secretary.

A. L. Penhale

General Manager and

Secretary.

G. F. Jenkins has been appointed Mines' Manager. He was formerly General Superintendent, and previous to that was Superintendent of their Beaver Mine.

And *E. L. Rainboth* has been made General Superintendent. He was formerly General Superintendent of Mines and before that had served as Superintendent of their King Mine.

THERMOID COMPANY
Carl Brockway Elected Vice President

Election by the Board of Directors of Carl Brockway to a Vice Presidency of Thermoid Company is announced by President Fred Schluter.

Prior to his becoming associated with Thermoid in 1941, Mr. Brockway was President and General Manager of Worldbestos Corporation a brake lining manufacturing concern. In his new capacity, Mr. Brockway will be responsible for all production of brake lining, clutch facings and other friction materials.

Mr. Brockway had a wide experience in the automotive industry previous to his connection with the friction materials field. Starting in 1907 with the Willys-Overland Corporation as factory superintendent, he held executive positions with the old Interstate Automobile Company at Muncie, Ind., the Splitdorf Corporation and Industrial Research Corporation.

UNITED ASBESTOS CORPORATION—Organized

United Asbestos Corporation is the name of a company formed last February to acquire 1,195 acres of land in Thetford and Wolfestown Townships, Quebec. Norman R. Fisher, consulting engineer, has recommended a program of exploration which will be carried out under the direction of Philip M. Malouf.

President of the new company is Edwin M. Freeman, of Canadian Asbestos Company of Montreal, while other directors are L. T. Porter, Gerald McTiegue, M. C. Lanctot and R. Wadsworth.

BOOK LIST

Asbestos Mining Methods. By C. V. Smith. (Reprint) 16 pages. 25c per copy, discount in quantities of 50 or more.

Milling Asbestos. By J. C. Kelleher. (Reprint) 16 pages. Companion article to Asbestos Mining Methods. Both should be in every Asbestos Library. 25c per copy, discount in quantities of 50 or more.

Recovery of Raw Asbestos. By Roland Starkey. (Reprint) 6 pages. Supplement to Milling Asbestos. 25c per copy, discount in quantities of 50 or more.

The Asbestos Factbook, 16 pages. Information in compact form on origin, facts, locations, uses, analyses, qualities. 10c

Canadian Chrysotile Asbestos Classification. Including latest Quebec Testing Method. 30c.

Twelve Estimating Tables, with Chart. Convenient in figuring flange fittings and other areas. $1.00 per set.

Manual of Unit Prices (for figuring pipe covering and blocks) 35c per copy postpaid.

Processing Asbestos Fibres. 8 pages. (Reprint) 25c per copy

Tests for Cotton Content. 4 pages (Reprint) Describing several methods of testing asbestos textiles for cotton content. 10c per copy.

Chart—Dollars Cost of Uninsulated Pipe. (Reprint) 25c each

Asbestos: A Magic Mineral, by Lilian Holmes Strack. Written for school children but should be in every Asbestos library. $1.00 per copy.

Asbestos—The Silk of the Mineral Kingdom, by Oliver Bowles. 40 pages about asbestos, from mine to finished product, in plain language, illustrated. 25c a copy.

Order any of the above from "ASBESTOS", 17th Fl., Inquirer Bldg., Philadelphia 30, Pa. Postage stamps acceptable for amounts less than $1.00.

• • • —

Many covet authority but few are willing to assume the attendant responsibilities—Donald W. Leathers

• • • —

Young men think old men are fools; but old men know young men are fools.

PATENTS

This information obtained from the Official Patent Gazette, published weekly by the U. S. Patent Office, Washington, D. C.

Copies of patents can be obtained by sending 25c (in coin) to The Commissioner of Patents, Washington, D. C., giving the patent number, date it was issued, name of patentee and name of invention.

Filter. No. 2,435,115. Granted on January 27, 1948, to Samuel Alsop, Meriden, Conn. Application November 19, 1943. Serial No. 510,859.

A non-metallic filter pack composed of a series of units each composed of two perforated pads of fibrous material (such as sulfate pulp and asbestos fibres) secured together at their peripheries and spaced apart inwardly to provide passages for liquid washerlike members between adjacent units, a plurality of cord members passing thru the center of said units and said washerlike members and means at the opposite ends of the pack for anchoring the ends of the cord members, said cord members being spaced apart but around the sides of the central perforations of the pads and the washerlike members to prevent the units from shifting latterly with respect to each other.

Panel Wall Construction No. 2,440,936. Granted on May 4, 1948, to Armin Ehmendorf, Winnetka and Morris Lieff, Chicago. Assignors one-half to Celotex Co., Chicago and one-half to Certainteed Products Corp., Chicago. Application April 8, 1943. Serial No. 482,244. A concealed nailing construction. Further description upon request.

Apparatus for Testing Friction Material. No. 2,441,993. Granted on May 25, 1948 to Don E. Dasher, Detroit, Mich., assignor to Bendix Aviation Corporation, Detroit. Application December 5, 1945. Serial No. 633,015. Description upon request.

Spraying Device for Fibrous Material. No. 2,442,206. Granted on May 25, 1948, to James L. Kempthorne, Montclair, N. J. Application June 30, 1945. Serial No. 602,547. Description upon request.

Composite Compressible Gasket. No. 2,442,311. Granted on May 25, 1948 to William R. Price, Rosemont, Pa. Assignor to Flexitallic Gasket Co., Camden, N. J. Application April 30, 1946. Serial No. 666,601. Description upon request.

Spiral Wound Gasket. No. 2,442,312. Granted on May 25, 1948, to William R. Price, Wayne, Pa. Assignor to Flexitallic Gasket Co., Camden, N. J. Application July 11, 1946. Serial No. 682,890. Description upon request.

Spiral Wound Gasket. No. 2,422,313. Granted on May 25, 1948, to William R. Price, Wayne, Pa. Assignor to Flexitallic Gasket Co., Camden, N. J. Application December 10, 1946. Serial No. 715,314. Description upon request.

J-M FIRST QUARTER REPORT

Sales for the first quarter of 1948 were $37,525,400 - for the same period in 1947 they totalled $29,787,458.

Earnings were $2,307,052 in 1948; $2,251,224 in 1947.

ASBESTOS QUARRY IN CORSICA

It is reported that the French firm La Societe Miniere de L'Amiante, which is controlled by Eternit of Prouvy-Thiant (Nord) France, has received from the Government of Paris, a credit of $650,000 to erect a plant at Canari, Corsica, for operating on a quarry of chrysotile rock. The plant will have a yearly capacity of five to six thousand tons of rather short fibre said to be suitable for the making of asbestos cement products. It is estimated that the rock will yield about 5 to 6% asbestos.

ASBESTONE CORPORATION — Invitation

On June 1st the Asbestone Corporation moved into their new office quarters at 5372 Tchoupitoulas Street.

The Company extends a cordial invitation to all members of the Asbestos Industry to visit their new quarters when next in New Orleans.

JOHNS-MANVILLE
Their new plant at Toronto.

The new plant of Canadian Johns-Manville at Port Union, near Toronto, Ont., is nearing completion and will combine Canada's largest rock wool plant with the first Asbestos-Cement Pipe plant in Canada. It is expected to produce 25,000 tons of pipe a year.

The plant contains 200,000 square feet of floor space, nearly five acres under roof. There are two main manufacturing buildings, an office building joined to each by an enclosed runway, power house, pump house, garage and several other structures, all dominated by a 127-foot, silver-colored water sphere (modern counterpart of the old fashioned water tank) with a capacity of 100,000 gallons.

AFTERTHOUGHTS

¶ A sales volume by Johns-Manville Corporation of up to $200,000,000 a year at current prices will be possible when the $60,500,000 expansion program, now well underway, is completed, according to Lewis H. Brown, Chairman of the Board. In physical volume this would represent 75% more than the company could have handled in its peak war year of 1942.

¶ Apropos of the Editorial on page 2—"Picking It Up and Putting It Down", what about your own desk? How many of the things on it at the moment you are reading this, do you really need there?

¶ We consider ourselves fortunate in obtaining the report on page 16, which describes the mineral zone of the asbestos deposit at San Vittore. Geological data on Italian deposits are very scarce—but extremely interesting.

¶ Strange as it may seem—note the advertisement on page 33.

¶ Those interested in the subject of filtration may find helpful the article in the May number of Food Industries, written by F. R. Hormann, President, F. R. Hormann & Co., Inc., Brooklyn, N. Y., under the title "Using Graded Porosity Pads for 'Depth' Filtration". Food Industries is published by McGraw Hill, 330 W. 42nd St., New York City, but the article can no doubt be consulted and read at your Public Library.

¶ Next month begins our 30th year!

¶ Soon—probably in July—we plan to begin a series of statistics showing production figures of various countries from the time the deposits in those countries were first worked and asbestos first shipped from them. We believe you will find it helpful to have this data.

¶ Knowledge often consists of having a secretary who knows where to find the thing.

CURRENT RANGE OF PRICE

As of June 10, 1948

Canadian—	Per Ton (2000 lbs.) f.o.b. Mine
Group No. 1 (Crude No. 1)	$896.00 to $960.00
Group No. 2 Crude No. 2; Crude Run-of-Mine and Sundry	350.00 to 545.00
Group No. 3 (Spinning or Textile Fibre)	204.50 to 378.00
Group No. 4 (Shingle Fibre)	84.50 to 123.00
Group No. 5 (Paper Fibre)	69.50 to 78.00
Group No. 6 (Waste, Stucco or Plaster)	47.00 to 51.50
Group No. 7 (Refuse or Shorts)	24.50 to 46.00
Vermont—	
	Per Ton of 2000 lbs. f.o.b. Hyde Park or Morrisville, Vt.
Group No. 4 (Shingle Fibre)	$97.00 to $107.00
Group No. 5 (Paper Fibre)	68.50 to 85.00
Group No 6 (Waste, Stucco or Plaster)	51.00
Group No. 7 (Refuse or Shorts)	25.50 to 46.50

Note: Crude Run-of-Mine (Canadian) refers to a crude asbestos produced in certain mines where Crude Fibre is not graded into regular No. 1 and 2 Crude. Crude Sundry refers to certain odd lots of off material which do not conform to the regular standards of No. 1 Crude or No. 2 Crude.

ASBESTOS STOCK QUOTATIONS

(These figures are compiled from the Commercial and Financial Chronicle. No guarantee made as to their correctness).

		May 1948		
	Par	Low	High	Last
Armstrong Cork Co. (Com.)	np	50½	54¾	53¾
Armstrong Cork Co. (Pfd.)	np	95⅜	98¾	98
Armstrong Cork Co. (Cum. Pfd.)	np	110½	112¾	112¼
Asbestos Corp. (Com.)	np	26½	29⅞	29⅞
Asbestos Mfg. Co. (Com.)	1	1⅞	2½	2½
Celotex (Com.)	np	27¼	33¼	32¼
Celotex (Pfd.)	20	18½	19¾	19⅛
Certainteed (Com.)	1	15¾	20	19⅞
Flintkote (Com.)	np	36⅝	41⅜	40⅞
Flintkote (Pfd.)	np	99	105	104½
Johns-Manville (Com.)	np	37⅜	42⅛	41⅝
Johns-Manville (Pfd.)	100	107	113¾	113
Paraffine Cos. (Com.)	np	24¼	28	27⅜
Paraffine Cos. (Pfd.)	100	100	105	105
Raybestos (Com.)	np	31	34¼	32⅝
Ruberoid (Com.)	np	61	72	72
Thermoid (Com.)	1	8⅛	10¾	9⅞
Thermoid (Pfd.)	50	21½	46¾	45
Union Asb. & Rubber (Com.)	5	13⅞	15½	15
U. S. Gypsum (Com.)	20	99	113	113
U. S. Gypsum (Pfd.)	100	174	182	182
U. S. Rubber (Com.)	10	42¾	49⅝	47
U. S. Rubber (Pfd.)	100	126	132	127

TIE UP WITH R/M

R/M has spun millions of miles of asbestos cords for industry. Cords of extreme flexibility are made for heating pad elements. High heat resisting cords are provided for glue pot and curling iron elements. Cords having maximum tensile strength are used in the braided wall of steam hose. Wire wiping cords remove excess metal from tinned and galvanized wire. All are made of asbestos, by R/M, to serve industry.

R M

RAYBESTOS - MANHATTAN, INC.

ASBESTOS TEXTILE & PACKING DIVISION

MANHEIM, PA. NORTH CHARLESTON, S. C.

SOUTHERN ASBESTOS

Braided and Woven

TUBING

Comes in various sizes for electrical insulation and heat-protection purposes. Experienced with the different uses for Tubing, Southern is qualified to recommend a desirable weave and construction for any service. Write for Bulletin No. 1010.

Over 25 years of specialized experience is at your service at Southern Asbestos Company to help you improve old and develop new uses for Asbestos Textiles and Textile Products.

SOUTHERN ASBESTOS COMPANY • CHARLOTTE 1 N